



Fact Sheet

Defence Green Building Requirements

Part 2 – Operation and Maintenance

Background

The Department of Defence (Defence) environmental vision is to be a leader in sustainable environmental management in Australia.

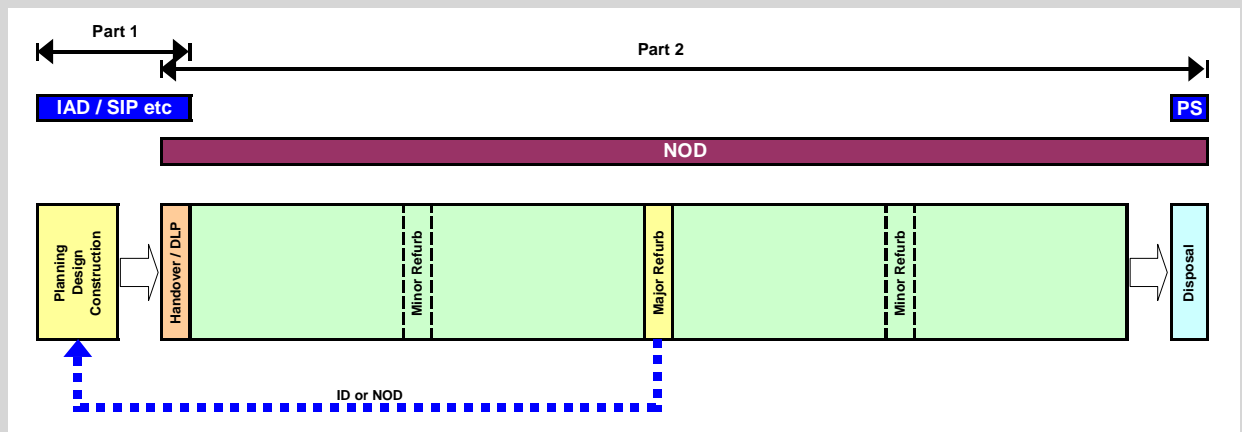
Defence buildings are required to be designed, built, renovated, operated, and maintained in an ecological and resource efficient manner in accordance with the National Ecologically Sustainable Development (ESD) Strategy, Defence ESD Strategy, and other Commonwealth and Defence policies and strategies.

Structure

The Green Building Requirements are set out in two parts:

- » **Part 1** – Procurement (covering Planning & Development and Delivery)
- » **Part 2** – Operation (covering Operation & Maintenance and Disposal)

Figure 1 Overview of Defence GBR Parts 1 and 2 in the Building Life Cycle



Purpose

The Defence Green Building Requirements Part 2 defines the actions required by Defence to integrate ESD into Defence's facility management processes and complements other Commonwealth and Defence policies / strategies for energy, water, waste, environmental management and product purchasing. It addresses key areas including Handover & Defects Liability Period (for new buildings), Operation & Maintenance, Refurbishments, Disposal, Minor New Works (delivered through FACOPS), Leased Buildings, and Private Finance Initiatives and other Defence managed buildings.

Target users include Defence personnel and contractors who manage, operate, maintain or occupy Defence facilities.



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The Estate Planning and Environment (EPE) Branch is responsible for implementing the Green Building Requirements through raising awareness about the policy amongst relevant stakeholders, and providing adequate consultation and communication.

Integration

The integration of ESD principles into the maintenance and operation of existing buildings and the incorporation of ESD improvements into these buildings represent the principal opportunity Defence has to reduce energy and water consumption and waste to landfill across the Defence portfolio.

The methodology to integrate ESD principles into existing buildings can be summarised as:

- » Identifying relevant maintenance works (e.g. FACOPS risk managed work projects relating to buildings)
- » Integrating ESD principles into the scope of work or project brief of the works through applying the relevant ESD checklist(s) and template(s) of the Green Building toolbox
- » Ensure that applicable ESD requirements are incorporated into the specifications of the projects where they are practical and represents value for money.

The methodology to incorporate ESD improvements into existing buildings can be summarised as:

- » Identify ESD improvement opportunities through an annual ESD appraisal
- » Obtain funding for ESD improvements (where required)
- » Implement ESD improvements
- » Monitoring & reporting of building / base performance before and after improvements

Building Procurement - Planning, Design and Construction

To obtain input from NOD staff (including RESOs) and both CMS and GSS Contractors to ensure that practical issues and any local or regional information / guidelines associated with the operation and maintenance of the facility and ESD are incorporated into the design and construction from the earliest stages.

Commissioning, Handover & Takeover

The Commissioning, Handover & Takeover process is important to achieve the following outcomes:

- » To ensure building operates as per design intent
- » To make routine maintenance simple and more cost effective
- » To provide training and building users' guide to Defence stakeholders including the RESO and other relevant Regional officers and managers, the building users (via NOD) and the CMS / GSS Contractors
- » To follow and update utility management plan to maintain or improve natural resource efficiency and achieve ESD targets in buildings

Defects Liability Period (DLP) & Post Occupancy Evaluation (POE):

Managing the DLP and the POE achieves better outcomes for the facility once it is up and running.

- » To smooth the transition of maintenance responsibility



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- » To assist in identifying outstanding defects prior to the end of the DLP
- » To monitor and report energy and water consumption
- » To carry out building tuning to achieve optimum environmental performance

Performance Monitoring and Reporting

The main ESD performance measurables are energy, water and waste.

- » CMS is to report on energy and water use on facilities, particularly the reporting of sub-metering data to the RESO
- » GSS is to report on waste management and purchasing requirements,
- » RESOs and other relevant Regional officers and managers to develop energy, water and waste reporting frameworks
- » Other environmental parameters such as indoor air temperatures and relative humidity, outdoor air exchange rates, lighting intensity, noise and indoor air quality can be monitored and reported where necessary.

ESD Appraisal (EA)

An ESD Appraisal (EA) process has been identified as the principal mechanism for identifying, costing and recording potential ESD improvement opportunities in existing buildings. EPE Branch will develop the EA process which will be adapted from the Infrastructure Appraisal (IA) process and register identified ESD improvement opportunities in an EA database.

Building Maintenance and refurbishment (minor new work)

Integrating ESD principles into maintenance relates to the adoption of ESD better practice and the specification of more environmentally friendly materials or products when these materials or products have been identified as needing replacement as a maintenance or refurbishment issue, and where it is practical and represents value for money.

A guideline, "**FACOPS Green Building Guidelines for Integrating ESD Principles into Maintenance and Risk Managed Work Projects**", was developed and included in the Defence Green Building Toolbox. Another guideline, "**FACOPS Green Building Checklist for Minor New Works**", was developed for Minor New Work projects.

User Education

Another key aspect of reducing the environmental impact of Defence buildings in operation, is the education of Defence personnel on optimal sustainable use of the buildings. Defence's Environmental Policy states that, "*Sound environmental management in Defence is the responsibility of all personnel - uniformed and civilian alike*"

Leased Buildings

Leased buildings are required to comply with the Green Lease Schedule of the Energy Efficiency in Government Operations (EEGO) policy. Other ESD initiatives such as water and waste targets will be progressively specified in the Schedule where practical and appropriate. For Defence leases the following requirements apply:



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- » **New Leases** – comply with the Energy Efficiency in Government Operations (EEGO) policy. Specify minimum energy and water targets and establish ESD KPIs and reporting requirements progressively through Green Lease Schedule.
- » **Existing Leases** – establish ESD improvement process / incentives and implement regular reporting requirements for energy, water and waste when leases are renewed.
- » **Private Finance Initiatives (PFI)** – ESD targets, essential requirements, and processes for Green Building Requirements Part 1 and Part 2 to be incorporated into PFI contracts.

Disposal

Implementing ESD into building disposal aims to reduce demolition waste and pollution and to divert waste away from landfill. This is achieved by:

- » Including waste targets in demolition Contract (to reduce waste to landfill)
- » Ensuring EPBC Act compliance
- » Managing potentially harmful materials or site contamination

For further information

Further guidance, including checklists, tools, case studies, specification templates and sources of information are, or will be, included in the Defence Green Building Toolbox, which is a companion reference resource for the Green Building Requirements. It is intended that the Toolbox will be regularly updated and expanded to reflect growing knowledge and emerging technologies for improved green buildings operation.

For more information contact the Estate Policy and Environment Branch in the Defence Support Group, Department of Defence.

The Defence Green Building Toolbox can be found online by visiting:

http://www.defence.gov.au/im/policy/green_building/main.htm